

PDS

DRAIN SOLUTIONS

QUICK – LOCK

STAMFORD WASTE
TREATMENT WORKS



QUICK  **LOCK**



INITIAL INVESTIGATION WORKS

WE WERE ASKED TO INVESTIGATE AN EXTERNAL FLOOD AT STAMFORD WASTE TREATMENT WORKS. A POOL OF FOUL WATER HAD FORMED OUTSIDE THE PUMP HOUSE AND THERE WERE CONCERNS THAT THERE MAY BE SOME DAMAGE TO THE RISING MAIN.

FOLLOWING THE INVESTIGATION IT WAS APPARENT THAT THE RISING MAIN FROM THE PUMP HOUSE HAD STRUCTURAL DAMAGE SITUATED 3M DEEP DIRECTLY UNDER WHERE THE POOL OF FOUL WATER HAD FORMED.

THE COSTS TO DIG WERE TOO EXPENSIVE AND DUE TO THE MAIN BEING PRESSURISED A NORMAL RESIN PATCH REPAIR WOULD NOT SUFFICE GIVEN THE PRESSURES OPERATING IN THE MAIN AND THE RISK OF A RESIN PATCH PEELING OFF AND CAUSING AN OBSTRUCTION.

WE DECIDED TO USE THE QUICK-LOCK REPAIR SYSTEM WHICH IS DESIGNED TO RESIST UP TO 10 BAR INTERNAL PRESSURE WHEN INSTALLED AND HAS A 50-YEAR SERVICE LIFE.

THIS IS THE IDEAL PRODUCT FOR REPAIRING PRESSURISED CAST IRON PIPES WITH ITS BENEFITS BEING ITS WORKING PRESSURE AND THE FACT THAT THIS REPAIR METHOD CAN BE USED WITHOUT THE USE OF RESIN, MEANING NO WAITING TIME FOR THE RESIN TO CURE.



FINDINGS FROM THE CCTV SURVEY

THE CCTV HIGHLIGHTED AN ISSUE WITH THE CAST IRON PIPE, THIS BEING A HOLE AND FRACTURE APPROX 2-3M INTO THE PIPE. DURING THE SURVEY THE DEFECT WAS IDENTIFIED BY A RAG HANGING DOWN FROM THE TOP OF THE PIPE WITH EVIDENCE OF AN OCCASIONAL DRIP.

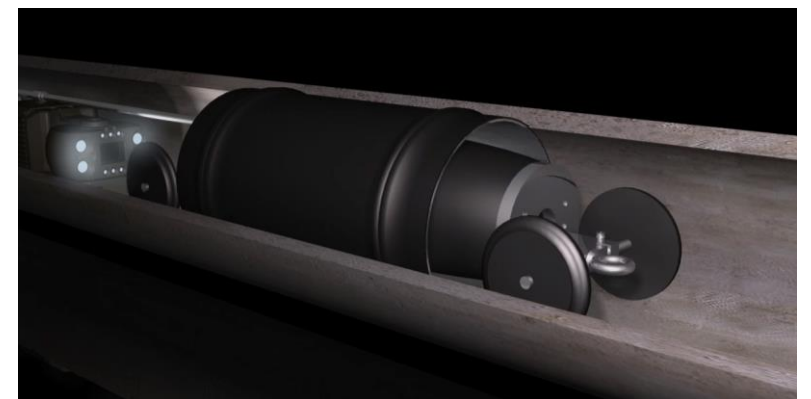
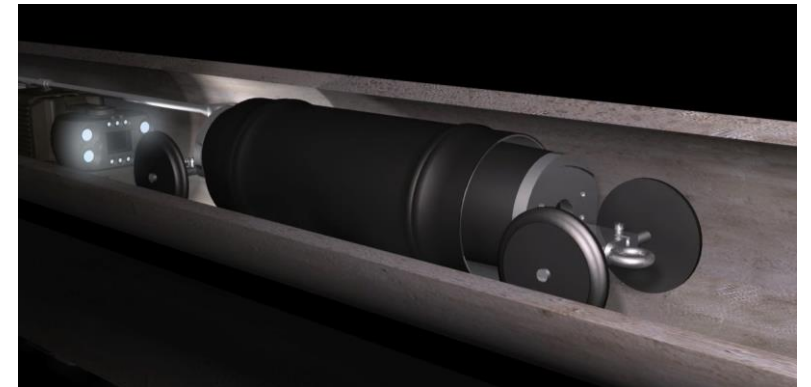
WHEN THE RAG WAS REMOVED THERE WAS A GUSH OF WATER AND THEN CONTINUOUS DRIPPING. THIS THEN ALLOWED US TO SEE THAT THERE WAS A FRACTURE AND HOLE SITUATED WHERE THE RAG WAS ATTACHED.

ONCE WE WERE ABLE TO FIND THE CAUSE OF THE FLOODING ISSUE WE THEN CONTINUED WITH THE SCOPE OF WORKS AND INSTALLED THE QUICK-LOCK REPAIRS IN THE EFFECTED AREA.



QUICK-LOCK INSTALLATION

- INSTALLING THE QUICK-LOCK REPAIRS IS STRAIGHT FORWARD COMPARED TO RESIN PATCHES.
- THE CONCEPT IS SIMILAR WITH THE USE OF THE PACKER SYSTEM BUT WITH NOT HAVING TO MEASURE AND CUT FIBRE GLASS OR MIX RESINS IT MAKES THE PROCEDURE LESS MESSY AND QUICKER INSTALLATIONS CAN BE ACHIEVED WITH THE ADDED BONUS OF ZERO CURING TIME.
- TO INSTALL THE QUICK-LOCK PATCH, THE PATCH IS ATTACHED TO THE PACKER WHICH IS THEN ALSO ATTACHED TO THE CRAWLER SO THE PACKER CAN BE POSITIONED INTO PLACE.
- ONCE THE PACKER IS POSITIONED INTO PLACE , THE PACKER IS THEN INFLATED OPENING THE LOCKS AND PATCH UP TO THE PIPE DIAMETER.
- ONCE INFLATED TO THE DESIRED PRESSURE / SIZE, THE PACKER IS THEN DEFLATED AND REMOVED FROM THE PIPE, LEAVING THE QUICK-LOCK PATCH IN PLACE AND SEALING OFF THE DEFECT.





FINAL RESULT

ON COMPLETION OF INSTALLING THE QUICK-LOCK PATCHES WE MANAGED TO REPAIR AND SEAL THE EFFECTED AREA WITH MINIMAL DISRUPTION AND MINIMAL WASTE. THE FINAL RESULTS WERE IMPRESSIVE WITH THE SMOOTH STAINLESS STEEL FINISH BRINGING THE PRESSURISED PIPEWORK BACK INTO SERVICE.

ON A WHOLE THE CREW WERE IMPRESSED WITH THE IMMEDIATE RESULT ATTAINED FROM THE INSTALLATION, EACH INSTALL CAN BE LOCKED INTO PLACE AT A GREATER SPEED THAN OTHER CONVENTIONAL METHODS WITH LESS RISK.

